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With that background of the state of the art in mind, the object of the present invention is that of providing an electrode arrangement which permits advantageous defibrillation.

SUMMARY OF THE INVENTION

In accordance with the invention that object is attained by an electrode arrangement of the kind set forth in the opening part of this specification, in which the electrode line in the electrode-bearing region of its distal end is adapted to be split into at least two branches respectively carrying electrodes. Preferably for that purpose the electrode line has splitting means in the electrode-carrying region at the distal end of the electrode line, which splitting means are adapted to split up the electrode-bearing region and are connected to actuating means which are arranged at the proximal end of the electrode line.

- 12 The capability of the distal end of the electrode line ~~for~~ being split up in that way affords a series of advantageous options, both in terms of therapy and also diagnosis, insofar as ~~the~~ electrode can be positioned for example at various laterally displaced locations of the heart without two separate electrode lines being required for that purpose. In that connection, a particularly preferred electrode arrangement is one in which the electrode-bearing region has a shaping structure, at least one of the branches, which is activatable simultaneously with or after splitting, and which is of such a nature that a first of the branches assumes a shape as a septal branch and a second branch assumes a shape as a lateral branch for assuming a septal position and a lateral position respectively in the atrium or the ventricle of a heart so that the septal branch and the lateral branch bear at least in a region-wise manner against the septal wall and the lateral wall respectively of the atrium or the ventricle.
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Such an arrangement makes it possible for electrodes to be positioned on mutually oppositely disposed side walls of the heart and for them to be actuated for example in bipolar mode in such a way that the others of the oppositely disposed electrodes which are associated with each other in pairs can serve as an anode

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a position in the ventricle or the atrium, respectively of heart and which has at least one electrode. An electrode arrangement of that kind increases the number of diagnostic and therapeutic options insofar as the ventricle and atrium electrodes can be combined with each individual one or any combination of the other electrodes.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in greater detail by means of embodiments with reference to the accompanying drawings in which:

Figures 1a to d show the distal end of four alternative embodiments of an electrode line with an electrode arrangement according to the invention;

Figures 2a and b show an electrode line as illustrated in Figure 1a inserted into a human heart, in different scales;

Figures 3a - c show an alternative embodiment of an electrode line inserted into a human heart;

Figure 4 shows an alternative embodiment of the electrode arrangement illustrated in Figure 1;

Figures 5a to c show three further alternative embodiments of the electrode arrangement without ventricle electrode;

Figures 6a to d are diagrammatic views of an insertion catheter for an electrode line mechanical comprising means for splitting up the distal end thereof and

Figure 7 is a diagrammatic view of alternative means for splitting up the distal end of the electrode line.

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